REMARKS

In the last Office Action, the Examiner rejected claims 14-16, 21 and 29 under 35 U.S.C. §112, second paragraph, for indefiniteness. Claims 1-3, 6, 13, 14, 16, 19-26, 28-35 and 40 were rejected under 35 U.S.C. §102(a) as being anticipated by U.S. Patent No. 5,917,268 to Takagi, U.S. Patent No. 5,783,899 to Okazaki, or U.S. Patent No. 6,064,140 to Zumeris. Claim 17 was rejected under 35 U.S.C. §102(a) as being anticipated by U.S. Patent No. 6,175,181 to Shirasaki. Claims 18 and 39 were rejected under 35 U.S.C. §103(a) as being unpatentable over Takagi, Zumeris or Okazaki. Claims 1-3, 6, 13, 14, 16, 18-26, 28-35, 39 and 40 were rejected under 35 U.S.C. §103(a) as being unpatentable over Japanese Patent No. 2-202382 ("Japan '382") in view of Takagi, Zumeris or Okazaki. Claims 7-9, 11, 12, 15, 27, 35, 36 and 38 were objected to as being dependent upon a rejected base claim, but indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants and applicants' counsel note with appreciation the indication of allowable subject matter concerning claims 7-9, 11, 12, 15, 27, 35, 36 and 38. However, for the reasons noted below, applicants respectfully submit that claims 1, 2, 6, 14, 16-26, 29-34, 37, 39, 41-43 also patentably distinguish from the prior art of record.

In accordance with the present response, allowable claims 7-9, 11, 15, 35, 36 and 38 have rewritten in independent form to incorporate the subject matter of the respective base claims. Independent claims 1, 2, 14, 16, 17 and 37 have been amended to further patentably distinguish from the prior art of record. Claims 12, 21 and 26, 27 and 29 have been amended in view of the amendments to independent claims 1 and 2. Claims 14-16, 21 and 29 have also been amended to overcome the indefiniteness rejection raised by the Examiner. New independent claims 42 and 43 have been added which correspond generally to the structure of the ultrasonic motor recited in amended independent claims 1 and 2, respectively. In independent claims 42 and 43, the location of the vibration nodes recited in amended independent claims 1 and 2 are reversed. Support for the subject matter recited in independent claims 42 and 43 is found in the drawings (Figs. 3-4) and the specification (pages 8-9). New dependent claim 41 has been added which depends on amended independent claim 1 and is directed to the feature recited in claim 21. Claims 13, 28 and 40 have been canceled. A new abstract which more clearly reflects the invention to which the claims are directed has been substituted for the previously submitted abstract.

In view of the foregoing amendments, applicants respectfully submit that the rejection of claims 14-16, 21 and

29 under 35 u.S.C. §112, second paragraph, has been overcome and should be withdrawn.

The amendments to the abstract and claims made herein do not raise new issues requiring further search and/or consideration. Instead, allowable claims 7-9, 11, 15, 35, 36 and 38 have been rewritten in independent form to incorporate the subject matter of the respective base claims, independent claims 1, 2, 14, 16, 17 and 37 have been amended to more clearly define the structure of the piezoelectric element which patentably distinguishes the claims from the prior art of record, claims 12, 21, 26, 27 and 29 have been amended in view of the amendment to independent claims 1 and 2, new claims 41 and 42-43 have been added which are generally directed to the subject matter of claims 21 and 1-2, respectively, claims 13, 28 and 40 have been canceled, and a new abstract has been substituted for the previously submitted abstract to more clearly reflect the invention to which the amended claims are directed, thereby placing the application in condition for allowance or in better form for appeal.

Attached hereto is a marked-up version of the changes made to the abstract and claims by the current amendment. The attached pages i-xi are captioned "**VERSION WITH MARKINGS TO SHOW CHANGES MADE**".

Applicants respectfully request reconsideration of their application in light of the following discussion.

Brief Summary of the Invention

The present invention is directed to an ultrasonic motor and to an electronic apparatus equipped with the ultrasonic motor.

As described in the specification (pgs. 1-3), the thickness of the vibrating body of conventional ultrasonic motors must be increased in order to obtain displacement of the moving body in a feed direction. The increase in thickness of the vibrating body increases the resonant frequency which adversely affects the driving efficiency and stability of the ultrasonic motor.

The present invention overcomes the drawbacks of the conventional art. Fig. 3 shows an embodiment of an ultrasonic motor according to the present invention embodied in the claims. The ultrasonic motor has a vibrating body 1 and a piezoelectric element 2 disposed on the vibrating body 1 for generating a vibration wave to vibrate the vibrating body. The vibration wave generated by the piezoelectric element 2 has a vibration node disposed on a diagonal line 10a of the vibrating body 1. The piezoelectric element 2 has four areas divided by two lines each connecting centers of a first pair of opposite sides and centers of a second pair of opposite sides, respectively, of the vibrating body 1. Electrode portions 3b-3e are disposed on respective ones of the four areas of the piezoelectric element 2. At least one protrusion

1a is connected to the vibrating body 1 for vibration therewith. The protrusion 1a is disposed on the vibrating body 1 at a position which does not correspond to the position of the vibration node of the vibration wave. A moving body 8 is disposed in contact with and is driven (i.e., rotates in the directions denoted by arrows 12, 13 in Fig. 2) by the protrusion 1a during vibration thereof.

In another embodiment, as shown in Fig. 2, the piezoelectric element 2 has four areas each having an electrode portion and divided by two diagonal lines 10a, 10b of the vibrating body 1. The vibration wave generated by the piezoelectric element 2 has a vibration node disposed on a line connecting a center of a first side of the vibrating body 1 and a center of a second side of the vibrating body 1 opposite to the first side.

Preferably, in the foregoing embodiments according to the present invention embodied in the claims, the vibrating body 1 is generally quadrilateral-shaped. The electrode portions of the piezoelectric element 2 generate a bending vibration wave in a thickness direction of the vibrating body 1.

By the foregoing construction, an ultrasonic motor having improved driving efficiency and stability is provided as compared to the conventional art. For example, the output characteristic of the ultrasonic motor according to the

present invention is constant regardless of the thickness of the vibrating body and the direction of rotation of the moving body. Furthermore, the resonant frequency of the ultrasonic motor of the present invention is decreased, thereby obtaining an increase in amplitude. Additionally, by providing a vibrating body which is generally quadrilateral-shaped, mass-production of the vibrating bodies is facilitated.

Traversal of Prior Art Rejections

Rejections Under 35 U.S.C. §102

Claims 1-3, 6, 14, 16, 19-26 and 29-34 were rejected under 35 U.S.C. §102(a) as being anticipated by Takagi, Okazaki or Zumeris. Applicants respectfully traverse this rejection and submit that amended claims 1-3, 6, 14, 16, 19-26 and 29-34 recite subject matter which is not identically disclosed or described in Takagi, Okazaki or Zumeris.

Amended independent claim 1 is directed to an ultrasonic motor and requires a vibrating body and a piezoelectric element disposed on the vibrating body for generating a vibration wave to vibrate the vibrating body, the vibration wave having a vibration node disposed on a diagonal line of the vibrating body. Amended claim 1 further requires that the piezoelectric element has four areas divided by two lines each connecting centers of a first pair of opposite sides and centers of a second pair of opposite sides,

respectively, of the vibrating body, each of the four areas having an electrode portion, and at least one protrusion connected to the vibrating body for vibration therewith, the protrusion being disposed on the vibrating body at a position which does not correspond to the position of the vibration node.

Amended independent claim 2 is also directed to an ultrasonic motor and requires a vibrating body and a piezoelectric element having four areas each having an electrode portion and divided by two diagonal lines of the vibrating body, the piezoelectric element being disposed on the vibrating body for generating a vibration wave to vibrate the vibrating body. Amended claim 2 further requires that the vibration wave has a vibration node disposed on a line connecting a center of a first side of the vibrating body and a center of a second side of the vibrating body opposite to the first side, and at least one protrusion connected to the vibrating body for vibration therewith, the protrusion being disposed on the vibrating body at a position which does not correspond to the position of the vibration node.

Amended independent claim 14 is also directed to an ultrasonic motor and requires a vibrating body and a piezoelectric element formed on the vibrating body for vibrating the vibrating body, the piezoelectric element having

a plurality of divided areas polarized in the same direction after the piezoelectric element is formed on the vibrating body.

Amended independent claim 16 is also directed to an ultrasonic motor and requires a generally plate-shaped body and a piezoelectric element bonded on the vibrating body and having four areas divided by two lines connecting a center of a first side of the vibrating body and a center of a second side of the vibrating body opposite to the first side. Amended claim 16 further requires that each area has an electrode portion, that the piezoelectric element has a plurality of polarized portions polarized in the same direction and each corresponding to a respective one of the electrode portions, and that the vibrating body is vibrated by applying drive signals different in phase by 180 degrees to two of the electrode portions.

Applicants respectfully submit that each of Takagi, Okazaki and Zumeris does not disclose or describe the structural combination, and corresponding functions, of the ultrasonic motor recited in amended independent claims 1, 2, 14 and 16.

Okazaki discloses an ultrasonic vibration motor having a linear elastic body which contacts a relative movement member, piezoelectric elements connected to the elastic body, and waveform generators for generating drive

signals producing waveforms. Takagi discloses a vibration driven motor having an elastic member and an electro-mechanical converting element connected to the elastic member. Zumeris discloses a ceramic motor having a rectangular piezoelectric plate, electrodes attached to the piezoelectric plate, and a moving body driven by vibrations generated when a drive signal is applied between the electrodes.

However, neither Okazaki, Takagi nor Zumeris discloses or describes the structure and corresponding function of the ultrasonic motor recited in amended independent claims 1, 2, 14 and 16. More specifically, the references do not disclose or describe a piezoelectric element having four areas divided by two lines each connecting centers of a first pair of opposite sides and centers of a second pair of opposite sides, respectively, of the vibrating body, each of the four areas having an electrode portion, and at least one protrusion connected to the vibrating body for vibration therewith, the protrusion being disposed on the vibrating body at a position which does not correspond to the position of a vibration node of a vibration wave generated by the piezoelectric element to vibrate the vibrating body, as required by amended independent claim 1. Likewise, the cited references clearly do not disclose or describe the structure of the piezoelectric element and the respective location of the vibration node of the vibration wave required by amended independent claims 2, 14 and 16.

In the absence of the foregoing disclosure recited in amended independent claims 1, 2, 14 and 16, anticipation cannot be found. See, e.g., W.L. Gore & Associates v. Garlock, Inc., 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984) ("Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration"); Continental Can Co. USA v. Monsanto Co., 20 USPQ2d 1746, 1748 (Fed. Cir. 1991) ("When more than one reference is required to establish unpatentability of the claimed invention anticipation under § 102 can not be found".); Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 221 USPQ 481, 485 (Fed. Cir. 1984) (emphasis added) ("Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim").

Stated otherwise, there must be no difference between the claimed invention and the reference disclosures, as viewed by a person of ordinary skill in the field of the invention. This standard is clearly not satisfied by the Okazaki, Takagi and Zumeris disclosures for the reasons stated above. Furthermore, Okazaki, Takagi and Zumeris do not suggest the claimed subject matter and, therefore, would not have motivated one skilled in the art to modify the ultrasonic vibration motor, the vibration driven motor, and the ceramic motor disclosed by Okazaki, Takagi and Zumeris, respectively, to arrive at the claimed invention.

Claims 3, 6, 19-24 and 25, 26, 29-34 depend on and contain all of the limitations of amended independent claims 1 and 2, respectively, and, therefore, distinguish from the references at least in the same manner as claims 1 and 2.

In view of the foregoing, applicants respectfully request that the rejection of claims 1-3, 6, 14, 16, 19-26 and 29-34 under 35 U.S.C. §102(a) as being clearly anticipated by Okazaki, Takagi or Zumeris be withdrawn.

Claim 17 was rejected under 35 U.S.C. §102(a) as being anticipated by Shirasaki. Applicants respectfully traverse this rejection and submit that amended independent claim 17 recites subject matter which is not identically disclosed or described in Shirasaki.

Amended independent claim 17 is directed to an ultrasonic motor and requires a vibrating body having a piezoelectric element for vibrating the vibrating body, a moving body rotationally driven by a vibration of the vibrating body, a pressurizing member for pressing the moving body into pressure contact with the vibrating body, and a bearing portion disposed on the pressurizing member for guiding rotational movement of the moving body. Amended claim 17 further requires that rotational movement of the moving body is regulated by the pressurizing member and the bearing portion. No corresponding structural combination is disclosed or described by Shirasaki.

Shirasaki discloses a vibration driven motor for generating a travelling vibration wave on a vibration member by applying a voltage to an electro-mechanical energy conversion element. However, Shirasaki does not disclose or describe the structural combination of a pressurizing member for pressing the moving body into pressure contact with the vibrating body and a bearing portion disposed on the pressurizing member for guiding rotational movement of the moving body, and that rotational movement of the moving body is regulated by the pressurizing member and the bearing portion, as required by amended claim 17. Since Shirasaki does not disclose or describe these structural features recited in amended independent claim 17, there can be no anticipation by Shirasaki of amended independent claim 17 under 35 U.S.C. §102(a). That is, since each and every limitation of independent claim 17 is not found in Shirasaki, the references do not anticipate the claimed invention. See In re Lange, 209 USPQ 288, 293 (CCPA 1981). Furthermore, Shirasaki does not suggest the claimed subject matter and, therefore, would not have motivated one skilled in the art to modify Shirasaki's vibration driven motor to arrive at the claimed invention.

In view of the foregoing, applicants respectfully request that the rejection of claim 17 under 35 U.S.C. §102(a) as being clearly anticipated by Shirasaki be withdrawn.

Rejections Under 35 U.S.C. §103(a)

Claims 18 and 39 were rejected under 35 U.S.C. §103(a) as being unpatentable over Okazaki, Takagi or Zumeris. Applicants respectfully traverse this rejection and submit that the teachings of Okazaki, Takagi and Zumeris do not disclose or suggest the subject matter recited in claims 18 and 39.

Okazaki, Takagi and Zumeris do not disclose or suggest the subject matter of amended independent claims 1 and 2 as set forth above for the rejection of claims 1-3, 6, 14, 16, 19-26 and 29-34 under 35 U.S.C. §102(a) as being anticipated by Takagi, Okazaki or Zumeris. Claims 18 and 39 depend on and contain all of the limitations of amended independent claims 1 and 2, respectively, and, therefore, distinguish from the references at least in the same manner as claims 1 and 2.

In view of the foregoing, applicants respectfully request that the rejection of claims 18 and 39 under 35 U.S.C. §103(a) as being unpatentably over Okazaki, Takagi or Zumeris be withdrawn.

Claims 1-3, 6, 14, 16, 18-26, 29-34 and 39 were rejected under 35 U.S.C. §103(a) as being unpatentable over Japan '382 in view of Okazaki, Takagi or Zumeris. Applicants respectfully traverse this rejection and submit that the combined teachings of Japan '382 and Okazaki, Takagi or

Zumeris do not disclose or suggest the subject matter recited in claims 1-3, 6, 14, 16, 18-26, 29-34 and 39.

Amended independent claims 1, 2, 14 and 16 are directed to ultrasonic motors as set forth above for the rejection of claims 1-3, 6, 14, 16, 19-26 and 29-34 under 35 U.S.C. §102(a) as being anticipated by Takagi, Okazaki or Zumeris.

The primary reference to Japan '382 discloses a planar ultrasonic actuator having planar vibration bodies arranged two-dimensionally on a base. Piezoelectric bodies are adhered to the planar vibration bodies for producing flex vibration in longitudinal and lateral directions. However, Japan '382 clearly does not disclose or suggest the structure of the piezoelectric element (e.g., the divided areas of the piezoelectric element) and the respective location of the vibration node of the vibration wave required by amended independent claims 1, 2, 14 and 16. As set forth above, the secondary references to Okazaki, Takagi and Zumeris do not disclose or suggest the structure of the piezoelectric element (e.g., the divided areas of the piezoelectric element) and the respective location of the vibration node of the vibration wave required by amended independent claims 1, 2, 14 and 16. Since Okazaki, Takagi and Zumeris do not disclose or suggest these features, they do not cure the deficiencies of Japan '382 and, therefore, one of ordinary skill in the art would

not have been led to modify the references to attain the claimed subject matter.

Claims 3, 6, 18-24 and 25, 26, 29-34, 39 depend on and contain all of the limitations of amended independent claims 1 and 2, respectively, and, therefore, distinguish from the references at least in the same manner as claims 1 and 2.

In view of the foregoing, applicants respectfully request that the rejection of claims 1-3, 6, 14, 16, 18-26, 29-34 and 39 under 35 U.S.C. §103(a) as being unpatentable over Japan '382 in view of Okazaki, Takagi or Zumeris be withdrawn.

Applicants respectfully submit that newly added claims 41-43 also patentably distinguish from the prior art of record.

Claim 41 depends on and contains all of the limitations of amended independent claim 1 and, therefore, distinguishes from the prior art of record at least in the same manner as claim 1.

New independent claim 42 is directed to an ultrasonic motor and requires a piezoelectric element disposed on the vibrating body for generating a vibration wave to vibrate the vibrating body, the vibration wave having a vibration node disposed on a line connecting a center of a first side of the vibrating body and a center of a second side of the vibrating body opposite the first side, the

piezoelectric element having four areas divided by two lines each connecting centers of a first pair of opposite sides and centers of a second pair of opposite sides, respectively, of the vibrating body, each of the four areas having an electrode portion. Claim 42 further requires that at least one protrusion connected to the vibrating body for vibration therewith, the protrusion being disposed on the vibrating body at a position which does not correspond to the position of the vibration node. Thus claim 42 differs from independent claim 1 in the specific location of the vibration node of the vibration wave. No corresponding structural combination is disclosed or suggested by the prior art of record.

New independent claim 43 is directed to an ultrasonic motor and requires a vibrating body, a piezoelectric element having four areas each having an electrode portion and divided by two diagonal lines of the vibrating body, the piezoelectric element being disposed on the vibrating body for generating a vibration wave to vibrate the vibrating body, the vibration wave having a vibration node disposed on a diagonal line of the vibrating body. Claim 43 further requires at least one protrusion connected to the vibrating body for vibration therewith, the protrusion being disposed on the vibrating body at a position which does not correspond to the position of the vibration node. Thus claim 43, differs from independent claim 2 in the specific location

of the vibration node of the vibration wave. Again, no corresponding structural combination is disclosed or suggested by the prior art of record.

The amendments to the abstract and claims made herein do not raise new issues requiring further search and/or consideration. Instead, allowable claims 7-9, 11, 15, 35, 36 and 38 have been rewritten in independent form to incorporate the subject matter of the respective base claims, independent claims 1, 2, 14, 16, 17 and 37 have been amended to more clearly define the structure of the piezoelectric element which patentably distinguishes the claims from the prior art of record, claims 12, 21, 26, 27 and 29 have been amended in view of the amendment to independent claims 1 and 2, new claims 41 and 42-43 have been added which are generally directed to the subject matter of claims 21 and 1-2, respectively, claims 13, 28 and 40 have been canceled, and a new abstract has been substituted for the previously submitted abstract to more clearly reflect the invention to which the amended claims are directed, thereby placing the application in condition for allowance or in better form for appeal.

In view of the foregoing amendments and discussion, the application is believed to be in allowable form. Accordingly, entry of this amendment and favorable

reconsideration and allowance of the claims are most respectfully requested.

Respectfully submitted,

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"VERSION WITH MARKINGS TO SHOW CHANGES MADE"

IN THE ABSTRACT:

The abstract has been amended as follows:

An ultrasonic motor has a vibrating body and a piezoelectric element disposed on the vibrating body for generating a vibration wave to vibrate the vibrating body. The vibration wave has a vibration node disposed on a diagonal line of the vibrating body. The piezoelectric element has four areas divided by two lines each connecting centers of a first pair of opposite sides and centers of a second pair of opposite sides, respectively, of the vibrating body. Each of the four areas has an electrode portion. At least one protrusion is connected to the vibrating body for vibration therewith. The protrusion is disposed on the vibrating body at a position which does not correspond to the position of the vibration node. A moving body is disposed in contact with and driven by the protrusion during vibration thereof.

IN THE CLAIMS:

Claims 1, 2, 7-9, 11, 12, 14-17, 21, 26, 27, 29 and 35-38 have been amended as follows:

1. (Twice Amended) An ultrasonic motor comprising:
a vibrating body;

a piezoelectric element disposed on the vibrating body for generating a vibration wave to vibrate the vibrating body, the vibration wave having a vibration node disposed on a diagonal line of the vibrating body, the piezoelectric element having four areas divided by two lines each connecting centers of a first pair of opposite sides and centers of a second pair of opposite sides, respectively, of the vibrating body, each of the four areas having an electrode portion;

at least one protrusion connected to the vibrating body for vibration therewith, the protrusion being disposed on the vibrating body at a position which does not correspond to the position of the vibration node; and

a moving body disposed in contact with and driven by the protrusion during vibration thereof.

2. (Twice Amended) An ultrasonic motor comprising:

a vibrating body;

a piezoelectric element having four areas each having an electrode portion and divided by two diagonal lines of the vibrating body, the piezoelectric element being disposed on the vibrating body for generating a vibration wave to vibrate the vibrating body, the vibration wave having a vibration node disposed on a line connecting a center of a first side of the vibrating body and a center of a second side of the vibrating body opposite to the first side;

at least one protrusion connected to the vibrating body for vibration therewith, the protrusion being disposed on the vibrating body at a position which does not correspond to the position of the vibration node; and

a moving body disposed in contact with and driven by the protrusion during vibration thereof.

7. (Twice Amended) An ultrasonic motor comprising:

a vibrating body;

a piezoelectric element disposed on the vibrating body for generating a vibration wave to vibrate the vibrating body, the vibration wave having a vibration node disposed on a diagonal line of the vibrating body;

at least one protrusion connected to the vibrating body for vibration therewith, the protrusion being disposed on the vibrating body at a position which does not correspond to the position of the vibration node;

a moving body disposed in contact with and driven by the protrusion during vibration thereof; and

[according to claim 1; further comprising] a support member for supporting the vibrating body along the diagonal line thereof.

8. (Twice Amended) An ultrasonic motor comprising:

a vibrating body;

a piezoelectric element disposed on the vibrating body for generating a vibration wave to vibrate the vibrating

body, the vibration wave having a vibration node disposed on a diagonal line of the vibrating body;

at least one protrusion connected to the vibrating body for vibration therewith, the protrusion being disposed on the vibrating body at a position which does not correspond to the position of the vibration node;

a moving body disposed in contact with and driven by the protrusion during vibration thereof; and

[according to claim 1; further comprising] a support member for supporting at least two corners of the vibrating body along the diagonal line thereof.

9. (Twice Amended) An ultrasonic motor comprising:

a vibrating body;

a piezoelectric element disposed on the vibrating body for generating a vibration wave to vibrate the vibrating body, the vibration wave having a vibration node disposed on a diagonal line of the vibrating body;

at least one protrusion connected to the vibrating body for vibration therewith, the protrusion being disposed on the vibrating body at a position which does not correspond to the position of the vibration node;

a moving body disposed in contact with and driven by the protrusion during vibration thereof; and

[according to claim 1; further comprising] a support member for supporting the vibrating body along a line

connecting a center of a first side of the vibrating body and a center of a second side of the vibrating body opposite the first side.

11. (Twice Amended) An ultrasonic motor comprising: a vibrating body; a piezoelectric element disposed on the vibrating body for generating a vibration wave to vibrate the vibrating body, the vibration wave having a vibration node disposed on a diagonal line of the vibrating body; at least one protrusion connected to the vibrating body for vibration therewith, the protrusion being disposed on the vibrating body at a position which does not correspond to the position of the vibration node; and a moving body disposed in contact with and driven by the protrusion during vibration thereof; [according to claim 1;] wherein the vibrating body has a groove formed in a surface thereof and along the diagonal line.

12. (Twice Amended) An ultrasonic motor according to claim 1; [wherein the piezoelectric element has four electrode portions divided by two diagonal lines of the vibrating body; and] wherein the vibrating body is driven by applying a drive signal to two of the electrode portions of the piezoelectric element.

14. (Twice Amended) An ultrasonic motor comprising: a [generally plate-shaped] vibrating body; and a piezoelectric element formed on the vibrating body for vibrating the

vibrating body, the piezoelectric element having a plurality of divided areas [~~bonded on the vibrating body and having a plurality of electrodes~~] polarized in the same direction [~~for vibrating the vibrating body~~] after the piezoelectric element is formed on the vibrating body.

15. (Twice Amended) An ultrasonic motor comprising: a generally plate-shaped vibrating body; and a piezoelectric element bonded on the vibrating body and having four areas [~~according to claim 14; wherein the plurality of electrodes comprises four electrode portions~~] divided by two diagonal lines of the vibrating body and a plurality of polarized portions polarized in the same direction, each area having an electrode portion corresponding to a respective one of the polarized portions; [and] wherein the vibrating body is vibrated by applying drive signals different in phase by 180 degrees to two of the electrode portions.

16. (Twice Amended) An ultrasonic motor comprising: a generally plate-shaped body; and a piezoelectric element bonded on the vibrating body and having four areas [according to ~~claim 14; wherein the plurality of electrodes comprises four electrode portions~~] divided by two lines connecting a center of a first side of the vibrating body and a center of a second side of the vibrating body opposite to the first side, each area having an electrode portion; wherein the

piezoelectric element has a plurality of polarized portions polarized in the same direction and each corresponding to a respective one of the electrode portions; and wherein the vibrating body is vibrated by applying drive signals different in phase by 180 degrees to two of the electrode portions.

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17. (Amended) An ultrasonic motor comprising: a vibrating body having a piezoelectric element for vibrating the vibrating body; a moving body rotationally driven by a vibration of the vibrating body; [and] a pressurizing member for pressing the moving body into pressure contact with the vibrating body; and a bearing portion disposed on the pressurizing member for guiding rotational movement of the moving body; wherein rotational movement of the moving body is regulated by the pressurizing member and the bearing portion.

21. (Amended) An ultrasonic motor according to claim 20; wherein the piezoelectric element has a plurality of polarized portions polarized in the same direction and each corresponding to a respective one of the [plurality of] electrodes [are polarized in the same direction].

26. (Amended) An ultrasonic motor according to claim [25;] 2; wherein the piezoelectric element has a plurality of electrodes for generating a bending vibration wave in a thickness direction of the vibrating body.

27. (Amended) An ultrasonic motor according to claim [26;] 2; [wherein the plurality of electrodes comprises four electrodes divided by two diagonal lines of the vibrating body; and] wherein the vibrating body is vibrated by applying a driving signal to two of the electrodes.

29. (Amended) An ultrasonic motor according to claim 2; wherein the piezoelectric element has a plurality of electrodes for generating a bending vibration wave in a thickness direction of the vibrating body and a plurality of polarized portions polarized in the same direction and each corresponding to a respective one of the [plurality of] electrodes [are polarized in the same direction].

35. (Amended) An ultrasonic motor comprising:

a vibrating body;

a piezoelectric element disposed on the vibrating body for generating a vibration wave to vibrate the vibrating body, the vibration wave having a vibration node disposed on a line connecting a center of a first side of the vibrating body and a center of a second side of the vibrating body opposite to the first side;

at least one protrusion connected to the vibrating body for vibration therewith, the protrusion being disposed on the vibrating body at a position which does not correspond to the position of the vibration node;

a moving body disposed in contact with and driven by the protrusion during vibration thereof; and

[according to claim 2; further comprising] a support member for supporting the vibrating body along a diagonal line of the vibrating body.

36. (Amended) An ultrasonic motor comprising:

a vibrating body;

a piezoelectric element disposed on the vibrating body for generating a vibration wave to vibrate the vibrating body, the vibration wave having a vibration node disposed on a line connecting a center of a first side of the vibrating body and a center of a second side of the vibrating body opposite to the first side;

at least one protrusion connected to the vibrating body for vibration therewith, the protrusion being disposed on the vibrating body at a position which does not correspond to the position of the vibration node;

a moving body disposed in contact with and driven by the protrusion during vibration thereof; and

[according to claim 2; further comprising] a support member for supporting a corner of the vibrating body along a line extending from a diagonal line of the vibrating body.

37. (Amended) An ultrasonic motor comprising:

a vibrating body;

a piezoelectric element disposed on the vibrating body for generating a vibration wave to vibrate the vibrating body, the vibration wave having a vibration node disposed on a line connecting a center of a first side of the vibrating body and a center of a second side of the vibrating body opposite to the first side;

at least one protrusion connected to the vibrating body for vibration therewith, the protrusion being disposed on the vibrating body at a position which does not correspond to the position of the vibration node;

a moving body disposed in contact with and driven by the protrusion during vibration thereof; and

[according to claim 2; further comprising] a support member for supporting the vibrating body along a line connecting a center of a first side of the vibrating body and a center of a second side of the vibrating body opposite to the first side.

38. (Amended) An ultrasonic motor comprising:

a vibrating body;

a piezoelectric element disposed on the vibrating body for generating a vibration wave to vibrate the vibrating body, the vibration wave having a vibration node disposed on a line connecting a center of a first side of the vibrating body and a center of a second side of the vibrating body opposite to the first side;

at least one protrusion connected to the vibrating body for vibration therewith, the protrusion being disposed on the vibrating body at a position which does not correspond to the position of the vibration node; and

a moving body disposed in contact with and driven by the protrusion during vibration thereof;

[according to claim 2;] wherein the vibrating body has a groove formed in a surface thereof and along a line on which the vibration node extends.